

DPS-20[®]

DUAL PROCESSING SYSTEM | MECHANICAL AND ULTRASONIC HOMOGENIZING



PRO PRO Scientific



*The PRO Scientific DPS-20
shown with 3mm ultrasonic probe,
7x15mm homogenizing generator and
20-space carousel rack for 15ml tubes*

TIPS, GENERATORS AND RACKS SOLD SEPARATELY

DPS-20® Dual Processing System

The DPS-20 Dual Processing System is a revolutionary product in the sample preparation field. This system combines mechanical and ultrasonic homogenizing methods in a closed, compact, fully automated and *timesaving* unit.

The three-in-one design of the DPS-20 allows the system to be used in any of the following automated configurations:

- Automated Ultrasonic Homogenizing System
- Automated Mechanical Homogenizing System
- Automated Mechanical and Ultrasonic Homogenizing System

This advanced system allows the maximum in choice and control to best support your processing needs. The DPS-20 merges the advantages of each homogenizing method to make it the optimum timesaving and flexible homogenizing system on the market. Mechanical or ultrasonic homogenizing can be used together or independently of each other. It leads to a faster and more efficient sample breakdown with minimal or no heat introduced, and more precise particle size reduction, all within a noise-reducing enclosure. Its automation capability allows for repeat processing and consistent results, freeing up time for other work in the laboratory.

A high-performance brushless motor powers the mechanical homogenizer while the 130-watt ultrasonic processor delivers constant amplitude throughout processing.

The sound-abating enclosure has LED interior lighting and a clear polycarbonate door for full view of the inside.

This system can be used with 15ml, 16ml, 19ml and 50ml tubes through its unique carousel rack design. Additional carousel racks can be purchased for quicker load time.

Up to 20 samples can be processed in one run, or include two rinse positions or setup for every other position to be a rinse position. A typical run time for 20 samples is under 10 minutes.

Onboard computing lets the DPS-20 store up to 10 different homogenizing programs in memory, or it can be used in the manual mode for individual sample processing.

Performance

- **Ultrasonic Homogenizer**
130 watts | Accepts 3mm and 6mm tips
- **Mechanical Homogenizer**
Brushless motor | 2,000 to 16,000rpm | Accepts 7x115mm and 10x115mm generators
- **Interchangeable 20-Place Carousel Racks**
For small tubes and/or large tubes

Technology

- **Modes: Fully Automated (programmable) or Manual**
- **Up to 10 programs easily stored and recalled**
- **Able to program multiple functions:**
Process times, up to 99.99 hours | Amplitudes (ultrasonic) and rpms (mechanical) | Probe/generator depths | Spin-off heights
Sample quantities | Rinse positions (0, 2 or 10 positions)

- Automated stand
- Automated indexing rack in both programmable and manual modes

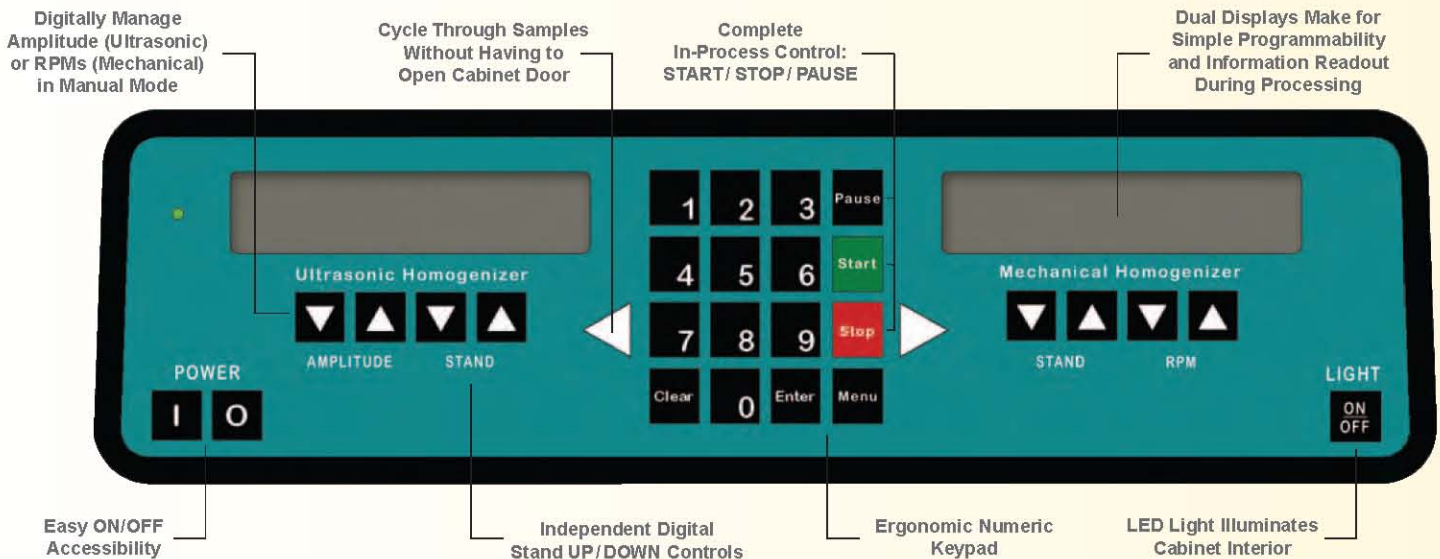
Instrument Design

- Hinged, clear polycarbonate door
- Sound-abating enclosure
- LED interior case lighting
- Removable drip tray for easy cleaning

Specifications

- **Tube Size (ml):** 15 and 50 conical | 16 and 19 round bottom
- **Noise (dB):** 64
- **Electrical:** 120VAC, 50/60Hz | 220VAC, 50/60Hz
- **Power (W):** 1200
- **Dimensions (in):** 12.75 x 29.5 x 18.25 (w x h x d)
- **Weight (lbs):** 85 (38.59kg)

System Control Panel



Systems | Packages | Accessories | Additional Tubes

When ordering a DPS-20, select **both** a **SYSTEM** and a **PACKAGE** from the list below. Accessories and additional tubes not included.

DPS-20 Systems

PART NUMBER	DESCRIPTION
01-01720	DPS-20 Dual Processing System, 120V
01-02720	DPS-20 Dual Processing System, 220V

Packages

PART NUMBER	DESCRIPTION
72-TR15-15C	20-Place Tube Carousel Rack w/ 3mm Ultrasonic Tip, 7x115mm Generator and 15ml Conical Tubes (qty. 40)
72-TR15-16R	20-Place Tube Carousel Rack w/ 3mm Ultrasonic Tip, 7x115mm Generator and 16ml Round Bottom Tubes (qty. 40)
72-TR15-19R	20-Place Tube Carousel Rack w/ 3mm Ultrasonic Tip, 7x115mm Generator and 19ml Round Bottom Tubes (qty. 40)
72-TR50-50C	20-Place Tube Carousel Rack w/ 6mm Ultrasonic Tip, 10 x 115mm Generator and 50ml Conical Tubes (qty. 40)
72-TR50-50CF	20-Place Tube Carousel Rack w/ 6mm Ultrasonic Tip, 10x115mm Generator and 50ml Conical, Free-Standing Tubes (qty. 40)

Accessories

PART NUMBER	DESCRIPTION
72-00150	Carousel rack, small tubes
72-00500	Carousel rack, large tubes
72-00422	3mm Ultrasonic Tip
72-00435	6mm Ultrasonic Tip
72-07115	7x115mm, 316 Stainless Steel Generator
72-10115	10x115mm, 316 Stainless Steel Generator

Additional Tubes

PART NUMBER	DESCRIPTION
11-PK3515	15ml Conical Tubes w/ caps, 17x120mm, polypropylene (qty. 1,000)
11-PK3100	16ml Round Bottom Tubes w/ caps, 17x120mm, polypropylene (qty. 1,000)
11-PK3150	19ml Round Bottom Tubes w/ caps, 16x125mm, polypropylene (qty. 1,000)
11-PK3500*	50ml Conical Tubes w/ caps, 29x115mm, polypropylene (qty. 1,000)
11-PK3650*	50ml Conical Free-Standing Tubes w/ caps, 29x115mm, polypropylene (qty. 1,000)

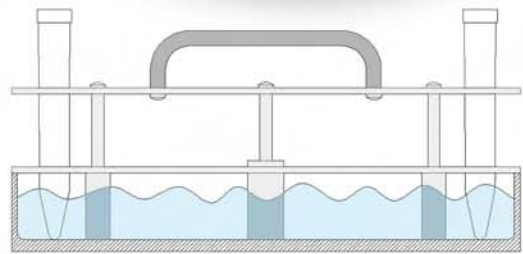
*Tubes only to be used with Large Tube Racks

Tube Carousel Packages

Tube Carousel Packages include everything you need to begin homogenizing with your DPS-20 System. Included in each Carousel Package is one ultrasonic probe, one mechanical homogenizer generator, one carousel tray and a package of forty tubes.

All DPS-20 Carousels now include a high impact, ABS tray design that the end-user can leave empty or easily fill with an ice bath or cooled bath beads. This means that:

- End-users can now safely use the DPS-20 as solely an automated Ultrasonic Multi-Sample Homogenizing System (turning off the mechanical motor units) and have no worry of denaturing their sample
- End-users with samples that must remain below ambient temperature can now have their samples be Ultrasonically and/or Mechanically homogenized with no worries
- Even when the carousel tray is filled, tubes are clearly visible for generator/probe placement during setup.
- Not filling the tray with ice or cooled bath beads will not affect the placement of the tubes, and the carousel can be run in this “non-cooling” mode.



CROSS SECTION OF A DPS-20 CAROUSEL



MICRO TUBE CAROUSEL



SMALL TUBE CAROUSEL



LARGE TUBE CAROUSEL



TUBE SIZE (VOLUME)	TUBE DIMENSIONS	ULTRASONIC PROBE SIZE	MECHANICAL GENERATOR SIZE	CAROUSEL PACKAGE PART NUMBER
1.5/2.0 ML (MICROTUBE)	11 x 38 MM	3 MM	5 x 75 MM	72-TR015-015C
15 ML (CONICAL)	17 x 120 MM	3 MM	7 x 115 MM	72-TR15-15C
16 ML (ROUND BOTTOM)	17 x 120 MM	3 MM	7 x 115 MM	72-TR15-16R
50 ML (CONICAL)	29 x 115 MM	6 MM	10 x 115 MM	72-TR50-50C
50 ML (CONICAL FREE STANDING)	29 x 115 MM	6 MM	10 x 115 MM	72-TR50-50CF
50 ML (CONICAL)	29 x 115 MM	6 MM	20 x 115 MM	72-TR52-50C
50 ML (CONICAL FREE STANDING)	29 x 115 MM	6 MM	20 x 115 MM	72-TR52-50CF

